



COMMONWEALTH of VIRGINIA

Office of the Governor

Aubrey L. Layne, Jr.
Secretary of Transportation

December 14 2017

Members of the General Assembly
Pocahontas Building
900 East Main Street
Richmond, Virginia 23219

Dear Members of the General Assembly,

Attached for your review is the annual "How the Commonwealth is Using Transit and Transportation Demand Management to Reduce Congestion and Use of Single-Occupant Vehicles." § 33.1-223.2:24 of the *Code of Virginia* requires:

The Secretary, in consultation and cooperation with the Commissioner of Highways and the Director of the Department of Rail and Public Transportation, shall annually...submit to the General Assembly a report on actions taken by the Commonwealth, local governments, and regional transportation authorities to (i) increase transit use and (ii) reduce highway congestion and use of single occupant vehicles through programs and initiatives involving transportation demand management, transit use, telecommuting, carpooling, construction of commuter parking facilities, use of flexible work hours, and telecommunications technology.

Please do not hesitate to contact me should you have questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to be "A. Layne, Jr.", written over the word "Sincerely,".

Aubrey L. Layne, Jr.



Virginia Department of Rail and Public Transportation

*How the Commonwealth is Using Transit and Transportation Demand Management
to Reduce Congestion and Use of SingleOccupant Vehicles*

Fiscal Year 2017 Annual Report

December 14, 2017

Table of Contents

1	Executive Summary.....	2
2	Introduction.....	6
2.1	Role of Transit.....	6
2.2	Role of TDM.....	6
2.3	Transit Services and TDM Programs in the Commonwealth.....	7
2.4	Transit Usage and Trends in the Commonwealth.....	8
2.5	The Economic Benefits of Transit.....	8
3	Major Initiatives.....	11
3.1	FY 2017 DRPT Six Year Improvement Program.....	11
3.2	Ensuring Continuation of Critical Transit Funding.....	11
3.3	Effectiveness of Transit Proven in SMART SCALE.....	13
3.4	Innovative Methods For Improving Mobility Along Most Congested Highways.....	14
3.5	Metrorail Safety Commission.....	14
3.6	Launch of Intercity Bus Program: Blacksburg to Washington, DC.....	15
3.7	Creation of Innovative Vanpool!VA Program.....	15
3.8	Continuation of Successful Telework!VA Program.....	16
3.9	Continuing TDM Programs.....	17
4	Transit and TDM Projects Supported by DRPT, by Commonwealth Transportation Board District.....	19
4.1	Bristol District.....	19
4.2	Culpeper District.....	19
4.3	Fredericksburg District.....	20
4.4	Hampton Roads District.....	21
4.5	Lynchburg District.....	22
4.6	Northern Virginia District.....	23
4.7	Richmond District.....	29
4.8	Salem District.....	31
4.9	Staunton District.....	32
5	Conclusion.....	34
6	Appendix.....	35

1 Executive Summary

This document is the Secretary of Transportation’s report to the General Assembly summarizing efforts undertaken in the Commonwealth of Virginia in Fiscal Year 2017 (FY17) to leverage the state’s investments in transit and transportation demand management (TDM) programs. A primary goal of these efforts, and part of the mission of the Department of Rail and Public Transportation (DRPT), is to reduce highway congestion and single occupant vehicle usage through transit, vanpooling, carpooling, teleworking, and other commuter services.

DRPT’s efforts to increase transit usage, reduce congestion, and decrease reliance on single occupant vehicles through its funding and programs have been consistently successful.

Efforts to boost these numbers continue apace: (i) There are now a total of 41 transit agencies in all nine Commonwealth Transportation Board districts, following the addition of a new system in 2017; (ii) service expansion is occurring throughout the state; and (iii) DRPT continues to help its partners promote TDM efforts, such as Vanpool!VA and Telework!VA.

Across the Commonwealth In FY17 there were...

- 176 million total transit trips*
- 3.9 million vanpool trips*
- 145 million vehicle miles eliminated through vanpooling programs*
- 275,000 carpool trips*
- 4 million vehicle miles eliminated through carpooling*
- 434,000 teleworkers (at least once per week)*
- 95 million automobile trips removed through telework programs*

Transit Usage and Trends in the Commonwealth: In 2016, DRPT finalized a statewide mobility [study](#) to provide a snapshot of the state of travel in the Commonwealth of Virginia. The study highlighted and underscored the changing dynamics of transportation and provided additional direction to DRPT on how to wisely invest its limited federal and state funding to further its agency goals. A notable finding of the study was that even though the population of Virginia increased by 7.8 percent between 2007 and 2015, the number of single occupant vehicle trips decreased by six percent. Transit usage in Virginia also increased during that time period:

	2007	2015	
Total transit usage	5.1%	6.8%	↑
Bus transit usage	1.8%	3.0%	↑
Rail transit usage	3.3%	3.8%	↑

Percent of Virginia's population using transit

Total transit usage nationally increased by a similar rate over the same time period. Additionally, utilization of teleworking and/or compressed work schedules rose from 4.5 percent to 8.3 percent, and the number of employers offering formal telework programs increased to 20 percent.

Effectiveness of Transit Services Proven in Smart Scale: SMART SCALE prioritizes projects based on their effectiveness at meeting the transportation goals of the Commonwealth. This process then ensures that localities and transit agencies will be concentrating on developing the best projects for SMART SCALE applications in the future. During this process, DRPT worked with localities and agencies to identify potential projects; and DRPT also provided technical assistance and project data to help complete the applications.

In SMART SCALE Round 2 for FY18 funding, 17 public transportation projects across six districts were selected for \$168 million. These transit projects selected demonstrate transit's high return-on-invest for public dollars. Additionally, the fact that transit projects scored so highly is indicative of transit's high value for alleviating congestion and addressing other transportation policy objectives.

- The third and fourth highest benefit-to-cost scores in the second round of SMART SCALE were transit projects: Columbia Pike Smart Corridor and Valley Metro's Smart Way expansion.
- The transportation project with the highest raw benefit score was the Fredericksburg line capacity expansion for Virginia Railway Express (VRE).

The Hopper, Lynchburg's downtown circulator, and the Averett Cougar Express, Danville Transit's new route, were the first SMART SCALE projects completed in the Commonwealth. Both projects were completed and initiated service in August 2017.

Metrorail Safety Commission: The Washington Area Metropolitan Area Transit system is part of the multimodal transportation network that supports the economic vitality of Northern Virginia. Recent ridership numbers indicate that Metrorail carries over 300,000 riders daily from Virginia.

Federal law mandates state safety oversight to heavy rail transit systems operating under their jurisdiction, and new administrative rules promulgated in 2016 gave all states until 2019 to receive federal certification. However, in early 2016, the Federal Transit

Administration (FTA) assumed full federal safety oversight over Metrorail and gave Virginia, Maryland, and the District of Columbia until February 2017 to institute a new, fully certified state safety oversight agency.

DRPT continues to proactively work with Washington D.C. and Maryland to ensure that FTA requirements for certification are met. During its 2017 session, the General Assembly enacted legislation to meet federal law and certification requirements creating the Metrorail Safety Commission (MSC). The D.C. Council passed identical legislation in 2016, and Maryland followed suit in March 2017. As required, Congress gave its final approval by passing a resolution in August 2017; and President Trump signed the resolution that same month. On October 20, Governor McAuliffe appointed two Commissioners to the MSC Board.

Innovative Methods For Improving Mobility Along Most Congested Highways: Some of the most congested roadways in the Commonwealth, I-66 and I-395, will witness major transformation due to implementation of High-Occupancy Toll (HOT) lanes that provide reliable travel option to residents and businesses while improving traffic flow along general purpose lanes that will continue to remain free.

While the I-395 Express Lanes, I-66 Inside the Beltway, and I-66 Outside the Beltway projects will result in major improvements, there is a need to provide other reliable travel options to the public. DRPT worked with the Virginia Department of Transportation (VDOT), Northern Virginia Transportation Commission, and other local entities to provide a package that ensures a steady stream of revenue for much needed transit services along those transportation corridors. These transit services will provide low-cost reliable travel options to area residents, remove cars from those congested roadways, and also improve traffic flow for everyone. Transit will receive the following funding to expand services:

- I-395 Express Lanes: Annual \$15 million payment.
- I-66 Inside the Beltway: \$9.8 million in 2017 to fund the first group of multimodal improvements selected by the Northern Virginia Transportation Commission.
- I-66 Outside the Beltway: \$800 million over the next 50 years to fund new point-to-point, peak period commuter bus services that will begin operation in the corridor when the Express Lanes open in 2022.

Ensuring Continuation of Critical Transit Funding: In 2019, \$110 million in dedicated revenues—44 percent of all program funding—will begin to phase out as the ten-year life of the Capital Project Revenue bonds comes to a close. The General Assembly passed HB1359 to establish the Transit Capital Projects Revenue Advisory Board (RAB) during the 2016 Session as recognition of the need to identify new funding sources for transit capital

investments. This legislation further required that a prioritization process for funding transit capital investments be explored.

Over the past year, the RAB worked to quantify the gap between transit capital needs and available funding, evaluate potential revenue options, identify a possible process for prioritization of transit capital projects, and outline recommended changes to the structure of the transit capital program.

An evaluation of the Commonwealth's documented funding needs and projected revenues has conservatively identified an average revenue gap of \$130 million annually over the next ten years, representing a drop of over 40 percent from existing funding levels. In 2020, the estimated gap will be \$35 million; and it will grow to an estimated gap of \$178 million by 2027.

Without addressing the shortfall, public transportation agencies will not be able to maintain the assets the Commonwealth has already invested in. Agencies will not be able to deliver today's level of service, and there will be increased maintenance costs with fewer routes and less transit service on the road. Decreased quality and reliability of public transportation directly impacts the ridership of transit, especially when it comes to services that address congestion such as commuter routes and rapid transit systems. [The August 2017 RAB report](#) to the General Assembly outlined an approach to addressing the capital revenue shortfall.

Investments in transit and TDM are reflective of the importance of both in the Commonwealth and their vital role in creating a sustainable and equitable multimodal future. Reducing both congestion and the number of single occupant vehicles is one of the agency's goals—one at which it excels—but it is important to note the other benefits of transit and TDM as well. These benefits as well as statewide and locally-based initiatives to meet the goals are further explained in this report.

2 Introduction

This report was prepared pursuant to § 33.1-223.2:24 of the *Code of Virginia*, which states:

The Secretary, in consultation and cooperation with the Commissioner of Highways and the Director of the Department of Rail and Public Transportation, shall annually, not later than November 1, submit to the General Assembly a report on actions taken by the Commonwealth, local governments, and regional transportation authorities to (i) increase transit use and (ii) reduce highway congestion and use of single occupant vehicles through programs and initiatives involving transportation demand management, transit use, telecommuting, carpooling, construction of commuter parking facilities, use of flexible work hours, and telecommunications technology.

This document is the eighth annual report and highlights ongoing efforts to provide and promote transit and TDM services in FY17. Further, it details the efforts both initiated and completed in FY17. All data in this report are from DRPT unless otherwise noted. Additional information is available at the websites of both [DRPT](#) and [VDOT](#).

2.1 Role of Transit

Transit in the Commonwealth takes on many forms including: local fixed-route bus, demand-response bus, and paratransit services. Additionally, there are bus rapid transit services (BRT) in Alexandria and Arlington and commuter bus service in Northern Virginia, Hampton Roads, and Richmond. In 2018, Virginia will launch a BRT service in Richmond as well as intercity bus service between Blacksburg and Roanoke as part of the FTA's 5311 rural transit program. Lastly, there is heavy rail service in Northern Virginia through Metrorail and VRE and light rail service in Norfolk (The Tide).

Transit serves a variety of roles in different parts of the state. In Northern Virginia and Hampton Roads, it helps relieve congestion and offers transportation options. In other areas, such as Southwest Virginia where congestion is not as significant an issue, transit still removes cars from the road and provides mobility options for populations who may not have other alternatives.

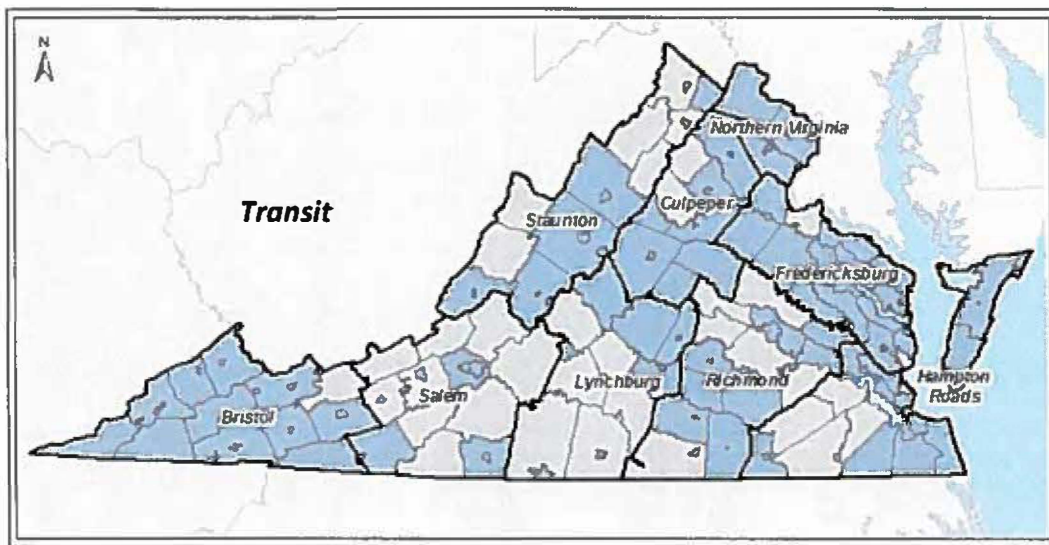
2.2 Role of TDM

TDM is the application of programs, services, and policies that reduces vehicle demand on the transportation network or redistributes the demand to off-peak times or other routes and modes. TDM increases the efficiency of the transportation network by concentrating on the movement of people, not just vehicles. TDM efforts include:

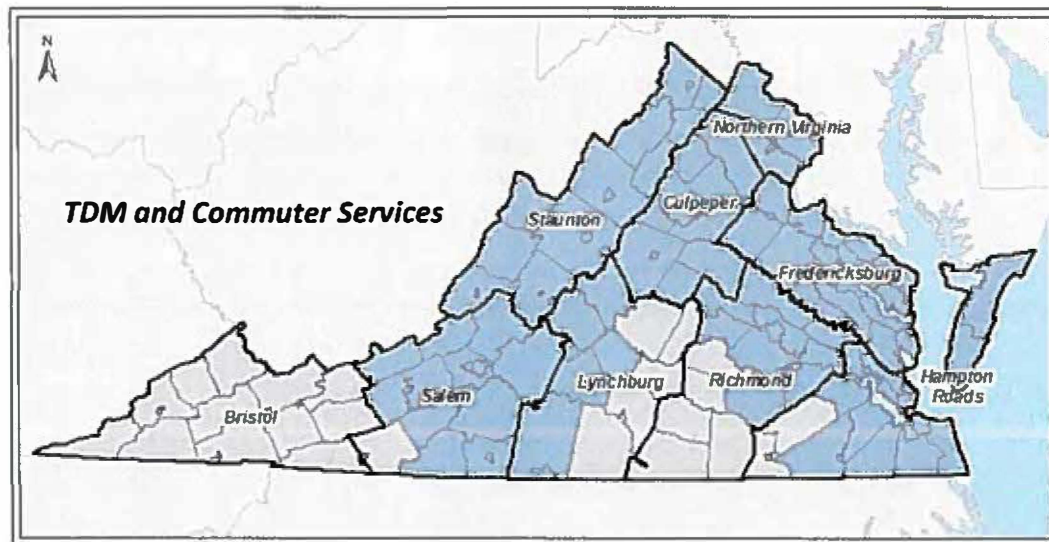
- Elimination of vehicle trips by supporting telework opportunities;

- Reduction of trips by moving trips from single occupant vehicles to rail and transit;
- Reduction of trips by moving trips from single occupant vehicles to carpools and vanpools; and
- Increasing awareness of transportation choices by promoting transportation options and educating the public on how to use them and their benefits.

2.3 Transit Services and TDM Programs in the Commonwealth



Transit in Virginia: Counties, cities, and towns in blue have some form of public transportation.



TDM and Commuter Services in Virginia: Counties, cities, and towns in blue have some form of TDM/commuter service programs

2.4 Transit Usage and Trends in the Commonwealth

In 2016, DRPT finalized a statewide mobility [study](#) to provide a snapshot of the state of travel in the Commonwealth of Virginia. The study highlighted and underscored the changing dynamics of transportation and provided direction to DRPT on how to wisely invest its limited

VRE provides service levels similar to 35 lane miles of interstate on I-66, a value of up to \$4 billion. It moves 20,000 people a day along both the I-66 and I-95 corridors.

federal and state funding to further its agency goals. A notable finding of the study was that even though the population of Virginia increased by 7.8 percent between 2007 and 2015, the number of single occupant vehicle trips decreased by six percent. Transit usage also increased during that time period:

	2007	2015	
Total transit usage	5.1%	6.8%	↑
• Bus transit usage	1.8%	3.0%	↑
• Rail transit usage	3.3%	3.8%	↑

Percent of Virginia’s population using transit

Over the same period of time, utilization of teleworking and/or compressed work schedules rose from 4.5 percent to 8.3 percent and the number of employers offering formal telework programs increased to 20 percent.

2.5 The Economic Benefits of Transit

The economic benefits of transit investment are well documented. According to the [American Public Transportation Association](#), for every \$1 billion spent on transit, over \$4 billion in economic benefit is generated: \$3.6 billion in added sales and another \$500 million in federal, state, and local taxes. Additionally, that \$1 billion generates nearly 40,000 jobs in numerous industries directly and indirectly related to transit.

Transit also induces jobs and economic growth while reducing state spending. To relieve congestion, the most common solution has been road construction, an increasingly expensive option. In addition to the high construction and maintenance costs, there is often the need to acquire land for projects. Transit is regularly a less expensive option and often uses existing right-of-ways. For example, VRE offers commuter service to 20,000 individuals daily from Fredericksburg and Manassas to Washington, DC. On the Manassas line, it provides service levels similar to 36 lane miles of interstate along I-66, a value of up

to \$4 billion. Further, it does not contribute to the estimated \$4.6 billion in congestion costs or the \$2.5 billion in emissions, accidents, and vehicle operations along I-66 and I-95.

A recent study completed for DRPT estimates that the loss of \$130M in annual transit capital funding will have over \$410M a year in economic impacts to the Commonwealth. The projected impact of the loss in state transit capital funding to Virginia's economy includes the estimated loss of \$200 million in economic activity annually and 1,000 jobs.

Economic Impacts	Loss of Jobs	1,000
	Reduced State Output	\$200 Million
	Reduced Labor Income	\$80 Million
	Reduced State Taxes	\$4 Million
Productivity Impacts	Increased Time Cost of Traveling	\$78.7 Million
	Increased Vehicle Operating Costs	\$41.8 Million
	Increased Safety Costs	\$5.6 Million
Total Annual Economic and Productivity Impact		\$410.1 Million

Across the four most congested regions studied, the study estimated that a reduction in capital spending on transit would lead to an increase in the time traveled, vehicle operating costs, and accident costs experienced by transportation system users. The annual value of additional time incurred by transportation system users from extending travel times is \$78.7 million in the year 2020. An additional cost of \$41.8 million in the year 2020 would be incurred in additional vehicle operating costs due to the extra miles driven as a result of reduced capital funding and the increase in automotive trips. Similarly, there is an additional annual cost of \$5.6 million that would be incurred in the form of costs of reduced safety. In total, these impacts on productivity are approximately \$126 million annually in 2020 and rising to \$208 million by the year 2040.

The Northern Virginia Transportation Commission, which serves as the steward for Virginia's share of WMATA funding and is a co-owner of the Virginia Railway Express, is currently finalizing a Regional High Capacity Transit Economic Impact Study.¹ The objective of NVTC's study is to quantify the value and worth that high capacity transit modes (Metrorail and VRE) operating in Northern Virginia brings to the Commonwealth. The effort focuses on quantifying the contribution of the state income tax and state retail sales and use tax to the state's general fund, as these two sources represent the vast

¹ Northern Virginia Transportation Commission June 2017 Monthly Commission Materials (<http://www.novatransit.org/uploads/meetings/2017/June2017lit.pdf>)

majority of general fund revenues. This study differs from previous and current work as it evaluates the level of land use and development that the transportation system can support. It also looks beyond property tax revenues to local governments and focuses on those types of revenue that would be assessed at the state level and impact the Commonwealth's General Fund. The Northern Virginia Transportation Commission has found that the general fund of the Commonwealth receives over \$600 million per year in revenue from the households and jobs supported by the high capacity rail network in Northern Virginia. This represents nearly four percent of the general fund revenues generated by the income tax and retail sales and use sales tax in Virginia.

3 Major Initiatives

3.1 FY 2017 DRPT Six Year Improvement Program

The [Six Year Improvement Program \(SYIP\)](#) is the joint funding document for DRPT and VDOT that is updated each year, and it is ultimately approved by the Commonwealth Transportation Board. It reflects funding priorities across the state, updated project schedules and costs, and study results. In addition to rail projects, DRPT's portion of the SYIP includes the funding allocations for public transportation capital purchases, operating assistance, and commuter and transit programs.

DRPT's Six Year Improvement Program allocated more than \$526 million of federal and state funds for public transportation and TDM.

This included \$205 million for capital projects, \$200 million in operating assistance, \$45 million in federal program funding, and \$4.5 million in TDM program funding.

The highlights of the FY17 funding are found in the Commonwealth Transportation Board District Activities section.

3.2 Ensuring Continuation of Critical Transit Funding

Of paramount importance to transit's future is the issue of funding, particularly in light of the upcoming expiration of Capital Project Revenue bonds. In 2019, \$110 million in dedicated revenues—44 percent of all program funding—will begin to phase out as the ten-year life of these bonds comes to a close.

In FY17, DRPT allocated almost \$526 million in state and federal funds to the Commonwealth's 41 transit agencies. Over the past four years, the Commonwealth has provided matching funds to local transit agencies, averaging 45 percent of total statewide public transportation capital investments; and the loss of these bonds will create an average revenue gap of \$130 million annually over the next ten years. This

RAB Membership:

*The Honorable Marty Williams, Chair
The Honorable Jeff McKay, Vice Chair
Mr. Josh Baker
The Honorable Mary Katherine Greenlaw
The Honorable Tom Rust
Mr. James Spore
Dr. James Toscano*

represents a drop of 44 percent from existing funding levels. In FY 2020, the estimated gap will be \$35 million, and it will grow to an estimated gap of \$178 million by 2027.

The General Assembly passed HB 1359 to establish the Transit Capital Projects Revenue Advisory Board (RAB) during the 2016 Session as recognition of the need to identify new funding sources for transit capital investments. This legislation further required that a prioritization process for funding transit capital investments be explored. Over the past year, the RAB worked to quantify the gap between transit capital needs and available funding, evaluate potential revenue options, identify a possible process for prioritization of transit capital projects, and outline recommended changes to the structure of the transit capital program.

The ability for the Commonwealth and its local governments to continue providing critically needed funding to sustain these investments and keep our transit systems in a state of good repair is at risk due to the expiration of these dollars. These funds are critical in enabling local transit systems to invest in replacement buses, rail cars, infrastructure, facilities, technology, and other capital needs. Without addressing the shortfall, public transportation in the Commonwealth will not be able to deliver today's level of service in the coming years. There will be fewer routes with less transit service and increased maintenance costs. Decreased quality and reliability of public transportation directly impacts the ridership of transit, especially when it comes to services that address congestion such as commuter routes and rapid transit systems.



Estimated Annual Transit Funding Gap by Fiscal Year

[The August 2017 RAB report to the General Assembly](#) outlined an approach to addressing the capital revenue shortfall. It states that the Commonwealth needs a steady and reliable stream of dedicated revenues for its transit capital program to meet state of good repair needs and support much needed transit expansion to keep up with population growth. The recommendations were:

- The Commonwealth should consider a funding approach that utilizes a combination of revenue sources to spread the impact or a single statewide source that is predictable and sustainable.
- Revenue sources that ramp up gradually to address future gaps and needs.
- A combination of statewide and regional sources, with the majority of support coming from statewide sources.
- An approach for regional funds directed to prioritized needs within that region.
- A floor on regional gas taxes.
- Excess Priority Transportation Fund revenues (after debt service) dedicated to transit capital as this source becomes available.

3.3 Effectiveness of Transit Proven in SMART SCALE

SMART SCALE is an important source of capital revenue that the Commonwealth is using for rail and transit projects. It complements the existing capital transit funds and prioritizes projects based on their effectiveness at meeting the transportation goals of the Commonwealth, as established in VTRANS.

This process then ensures that localities and transit agencies will be concentrating on

developing the best projects for SMART SCALE applications in the future. DRPT is an active participant in the SMART SCALE process, along with VDOT and the Office of Intermodal Planning and Investment, by providing technical and policy expertise and analysis for multimodal projects. DRPT also worked with localities and agencies to identify potential projects as well as provided technical assistance and project data to help round out the applications.



The SMART SCALE funding prioritization process, adopted in 2014, had its first round in FY17 with eight public transportation projects across four districts receiving \$31 million dollars in total. In FY18 during SMART SCALE'S second round, 17 public transportation projects across six districts were selected for \$168 million of funding. This increase represents a significant commitment to transit and TDM. For the FY18 projects alone, funding went to new rail and bus vehicles, commuter rail infrastructure, and bus station and stop improvements.

The transit projects selected also demonstrate transit's high return-on-invest for public dollars. The third and fourth highest benefit-to-cost scores in the second round of SMART SCALE were transit projects: Columbia Pike Smart Corridor and Valley Metro's Smart Way expansion. Additionally, the transportation project with the highest raw benefit score was Fredericksburg line capacity expansion for VRE. The fact that transit projects scored so highly is indicative of transit's high value for alleviating congestion and addressing other transportation policy objectives.

The Fredericksburg line capacity expansion for VRE had the highest raw benefit score in the FY18 SMART SCALE project pool.

A list of projects funded in both round one, FY17, and round two, FY18, is found in the District Initiatives section.

3.4 Innovative Methods For Improving Mobility Along Most Congested Highways

Some of the most congested roadways in the Commonwealth, I-66 and I-395 in Northern Virginia, will witness major transformation due to implementation of High-Occupancy Toll (HOT) lanes that provide reliable travel option to residents and businesses while improving traffic flow along general purpose lanes that will continue to remain free.

While the I-395 Express Lanes, I-66 Inside the Beltway, and I-66 Outside the Beltway projects will result in major improvements to these roadways, the ultimate goal of these projects is to increase person throughput whether by highway or transit. DRPT worked with VDOT, Northern Virginia Transportation Commission, and other local entities to provide a package that ensures a steady stream of revenue for much needed transit services along those transportation corridors. These transit services will provide low-cost reliable travel options to area residents, remove cars from those congested roadways, and also improve traffic flow for everyone.

More detailed descriptions of these transformative projects are included in Section 4.6 – Northern Virginia District.

3.5 Metrorail Safety Commission

The WMATA system is part of the multimodal transportation network that supports the economic vitality of the entire Washington Metropolitan area including Northern Virginia.

Federal law mandates state safety oversight to heavy rail transit systems operating under their jurisdiction, and new administrative rules promulgated in 2016 gave all states until

2019 to receive federal certification. Due to concerns over the effectiveness of the former state safety oversight for WMATA, Maryland, the District of Columbia, and Virginia were required to establish a new, certified state safety oversight, the Metrorail Safety Commission (MSC), by February 9, 2017. Additionally, in early 2016, the FTA assumed full federal safety oversight over Metrorail until the MSC is fully operational.

DRPT is proactively working with Washington D.C. and Maryland to ensure that FTA requirements are met. During its 2017 session, the General Assembly enacted legislation to establish the MSC as an interstate compact with the enforcement authority of safety oversight of WMATA. The D.C. Council passed identical legislation in 2016, and Maryland followed suit on March 2017. As required, Congress gave its final approval by passing a resolution in August 2017, and President Trump signed the resolution that same month. However, since the three jurisdictions did not meet the February 9, 2017 deadline, the FTA has been withholding five percent of 5307 formula funds to transit agencies in Virginia, Maryland, and D.C. until it certifies the MSC.

3.6 Launch of Intercity Bus Program: Blacksburg to Washington, DC

Intercity bus service creates a connection between rural areas and the larger regional or national system of buses. Bus schedules are developed to make practical connections to current intercity carriers making travel accessible, reliable, and convenient. Under the FTA Section 5311 rural transit formula program, Virginia is required to utilize up to 15 percent of its annual appropriation towards facilitating intercity bus service in the Commonwealth where it is otherwise underserved or does not exist.

Following a [2013 study](#), DRPT determined that the I-81 and I-66 corridors between Blacksburg and Washington, DC presented an underserved, yet viable, market to pilot an intercity bus service. In February 2017, DRPT issued a request for proposals for a pilot

program along this route. This service will be 100 percent federally funded, and the proposed route will be accessible to a number of colleges and will connect to local transit services. The service, branded as the Virginia Breeze, will begin on December 1, 2017 and is anticipated to carry over 10,000 passengers per year.



3.7 Creation of Innovative Vanpool!VA Program

This year DRPT created the Vanpool!VA program to expand and improve vanpool programs throughout the Commonwealth. The program was developed with input from TDM agencies, transit agencies, and vanpool companies. The goals of Vanpool!VA are to increase

the number of people who move through Virginia's roadways and to provide vanpooling as a commute option by increasing the number of vanpools operating and overall ridership.

As part of Vanpool!VA, DRPT created a competitive grant program where eligible recipients can apply for funding for programs or projects that increase vanpooling and vanpool ridership. Examples of eligible vanpool projects are:

- Vanpool support subsidies where DRPT provides start-up funding to provide a stipend to operators in exchange for reporting of operating data. The operating data is then reported to FTA, resulting in an increase in federal 5307 funding to continue the vanpool financial support.
- VanStart assistance that provides funding for new vanpools to help them in the operation startup phase.
- VanSave assistance that will keep a vanpool in operation when more than one rider drops out of the vanpool.
- Incentives to encourage commuters to try vanpooling.
- Statewide marketing and ridematching tools.

vanpool!va

Vanpools eliminate more than three million automobile trips per year in Virginia.

In the coming year, DRPT will launch a Vanpool!VA website that will serve as a one-stop information portal. The new website will serve the public, vanpool operators, TDM agencies, and transit agencies. DRPT will also develop and implement a promotional campaign to educate the public on the benefits of vanpooling and how vanpooling works.

3.8 Continuation of Successful Telework!VA Program

Since 2001 when DRPT created the Telework!VA program, DRPT and Virginia's TDM programs have been promoting telework and helping businesses set up telework programs. The highlights of the program include:

- DRPT's Telework!VA website, www.teleworkva.org: It is the one-stop resource for businesses, individuals, and government agencies looking to learn more about telework. Included within this website are step-by-step instructions and e-learning tools on how to implement a successful telework program, sample telework policies and agreements, success stories from companies with proven programs, strategies for managing teleworkers, and how to be a productive teleworker.

telework!va

Telework eliminates more than 90 million automobile trips per year in Virginia.

- **Technical assistance to businesses:** In Northern Virginia, DRPT provides free technical assistance from telework experts to businesses to help them set up a telework program.
- **Technical assistance on tax credits to businesses:** DRPT also helps businesses with understanding and meeting the requirements of Virginia’s business tax credit for telework. Under the tax credit legislation, businesses may qualify for a tax credit up to \$50,000 for expenses incurred with implementing a telework program for their employees.

In FY16, TDM programs eliminated more than 20 million vehicle miles and more than 500,000 auto trips from Virginia’s roads.

3.9 Continuing TDM Programs

The local, regional, and statewide TDM programs provide much needed direct customer service to commuters, travelers, and businesses in Virginia. Every year families, individuals, and businesses move into and within Virginia. Many people change jobs with in Virginia as well. These changes in job and residential locations create a need for TDM programs to continually assist people with their travel options and promote the benefits of using transit, vanpool, carpool and telework. In FY17, Virginia’s TDM programs efforts accounted for a reduction of almost 2 million auto trips and more than 68 million miles traveled.

While the transit agencies and TDM programs promote their services at the local level, there is a need for statewide promotions to reach more people while coordinating and reinforcing a common message to use transit and TDM options. DRPT has led statewide promotions of Try Transit Week and Telework Week and initiated a statewide Bike to Work Week promotion this year.

Try Transit Week

For the past nine years, DRPT has led Virginia’s Try Transit Week campaign. Held during the third week of September, Try Transit Week promotes all forms of transit—bus, rail, ferry, and vanpool. To raise awareness and to encourage public participation, DRPT holds a contest where the Grand Prize winner receives a one-year transit pass and two round-trip tickets on Amtrak. The public can enter the contest by going to www.trytransitweek.org and completing a form pledging to try transit.



Telework Week

DRPT has been conducting the Virginia Telework Week campaign since 2011, and it is held during the first full week of March. During Telework Week, DRPT



encourages businesses across Virginia to establish a formal or pilot telework program and allow qualifying employees to work from home at least one day during Telework Week. Further, individuals are encouraged to sign up through <http://www.teleworkva.org> to telework at least one day during Telework Week.

Bike to Work Week

For the first time, DRPT conducted statewide promotion of Bike to Work Week to provide a boost to local initiatives and to broaden the awareness of the week. Bike to Work Week was May 15–19. DRPT promoted Bike to Work Week with a Governor’s proclamation, media release, a Bike to Work page on the agency’s website, Facebook posts and newsfeed ads, and live on-air radio reads to sponsor traffic reports on various radio stations.

Local and Regional TDM Programs

Since the 1970s when Virginia’s first carpool matching and ridesharing programs were established, TDM has been used to provide Virginia’s residents and workers with additional commuting choices. Initially established to provide ridematching services to form carpools, TDM programs now provide a multitude of services to the public and employers. Today, there are sixteen TDM and commuter assistance programs that work to reduce unnecessary single occupant vehicle trips and help keep people moving on Virginia’s road and transit systems.

With the support of DRPT, local governments, regional planning organizations, transit agencies, and Transportation Management Associations (TMAs) have developed TDM programs to that provide alternatives to reliance on the single occupant vehicle trips and thus reduce congestion. These TDM programs provide the following services for the public and employers:

- Ridematching/Commute Options Information/Trip Planning
- Guaranteed/Emergency Ride Home Program
- Employer Outreach/Commuter Benefits and Telework Program Development
- Incentives and Rewards Programs
- Carpool and Vanpool Formation Assistance
- Marketing and Promotions
- Commuter Stores
- Bikesharing
- Promotion of Carsharing Programs

4 Transit and TDM Projects Supported by DRPT, by Commonwealth Transportation Board District

4.1 Bristol District

Transit and TDM in Bristol District

The Bristol District is served by five public transit agencies—Bristol Virginia Transit, Four County Transit, Mountain Empire Older Citizens, Mountain Lynx/District III, and Graham Transit—that operate fixed and demand-response transit service. These services provided nearly 500,000 trips in FY17.

Transit and TDM Investments in FY17

Capital improvement projects in FY17 included six new vehicles, 12 replacement vehicles, and facilities equipment.

4.2 Culpeper District

Transit and TDM in Culpeper District

The Culpeper District is served by three transit agencies: Charlottesville Area Transit (CAT), Greene County Transit, and JAUNT. Transit service includes fixed route, demand-response, and paratransit in Charlottesville and surrounding counties. Additionally, Virginia Regional Transit (VRT), which provides services across multiple districts, operates local circulator service in Culpeper and Warrenton. These services provided almost 2.5 million trips in FY17.

The district is also served by two TDM programs: RRRC Commuter Services, operated by the Rappahannock-Rapidan Planning District Commission, and RideShare, operated by the Thomas Jefferson Planning District Commission. These programs accounted for a reduction of more than 20,000 auto trips and nearly one million miles of travel in FY17.

Transit and TDM Investments in FY17

Transit improvement projects in FY17 include 19 new passenger vehicles for expanded service, renovations to JAUNT's administrative and maintenance facilities, and new transit planning software for CAT.

Transit and TDM Projects Funded in SMART SCALE Round 1

- The Brandy Station park-and-ride lot off of US 15 and US 29 was approved for expansion from 45 spaces to 95 spaces. The lot will help in the reduction of vehicle miles traveled by creating a better environment for carpooling and thus reducing

single occupant vehicle trips out of Culpeper County (where approximately 50 percent of workers commute out of the county).

- A park-and-ride lot expansion in Warrenton at US 29 and Colonial Road received funding. The expansion will bring the total number of spaces from 212 to over 350. Because of Warrenton's location just outside of the Northern Virginia region, there are a high percentage of commuters (like Culpeper); this project will then induce more ridesharing activity.

4.3 Fredericksburg District

Transit and TDM in Fredericksburg District

The Fredericksburg District is serviced by two transit agencies and three TDM programs. Bay Transit operates demand response and seasonal fixed route in the Northern Neck and Middle Peninsula regions, and Fredericksburg Regional Transit operates fixed route service in the I-95 corridor. VRE also operates in the Fredericksburg District. These services provided 525,000 trips in FY17.

The TDM programs in the district are GWRideConnect (operated by George Washington Regional Commission), Middle Peninsula Ridershare (Middle Peninsula Planning District Commission), and NeckRide.org (Northern Neck Planning District Commission). These programs accounted for a reduction of more than 200,000 auto trips and 11 million miles of travel in FY17.

Transit and TDM Investments in FY17

Capital funding in the district was allocated for eight vehicle replacements, new bus shelters, and route scheduling and dispatch software.

Transit and TDM Projects Funded in SMART SCALE Round 1

- A new commuter park and ride lot at Massaponax in Spotsylvania County, at the corner of US 1 and Commonwealth Drive, will have an estimated 715 parking spaces and connect with Fredericksburg Regional Transit, vanpooling, and carpooling to both Richmond and Northern Virginia.
- The second lot, off of Courthouse Road in Stafford east of I-95 off of Exit 140, would add an additional 300 parking spaces to the existing 545-space lot. This expansion will also provide infrastructure for transit, vanpooling, and carpooling out of the Fredericksburg area.

Transit and TDM Projects Funded in SMART SCALE Round 2

- SMART SCALE funding was provided for expansions of two VRE stations: the Leland and Brooke Stations in Stafford County. This expansion will help to meet a growing demand for the service and increase capacity since ridership on VRE increased 7.5 percent between FY16 and FY17. Currently, both stations' platforms can only accommodate five-car trains, and the new platforms will allow for eight-car trains. Additionally, the construction will include significant increases in parking at the Leland Road Station (225 additional spaces for a total of over 1,250). Multimodal facilities, such as bicycle racks, crosswalks, and shared use paths, will be installed at both stations. This set of projects is estimated to add an additional 2,000 daily peak-period trips.



4.4 Hampton Roads District

Transit and TDM in Hampton Roads District

There are five transit agencies in the Hampton Roads District that operate fixed route, demand-response, and paratransit service. Those agencies are the Suffolk Transit, Hampton Roads Transit (HRT), Pony Express in the Town of Chincoteague, STAR Transit on the Eastern Shore, and the Williamsburg Area Transit Authority (WATA). This does not include the new service in Greensville County and Emporia that started service on October 2, 2017. These services provided nearly 17.5 million trips in FY17, including 1.3 million by light rail transit and almost 300,000 by passenger ferry

In the Hampton Roads District, TRAFFIX, operated by HRT, is the regional TDM program serving commuters, residents, and private sector and government/military employers. The TRAFFIX program accounted for a reduction of more than 400,000 auto trips and 100 million miles of travel in FY17.

Transit and TDM Investments in FY17

Across the district, 30 expansion and replacement vehicles were funded, including two new buses for the new system in Greensville County and Emporia. WATA was also allocated money for new transit technology purchases and real estate acquisition for a new transfer center.

Transit and TDM Projects Funded in SMART SCALE Round 1

- A park-and-ride lot on the Peninsula that currently serves over 8,000 individuals and 23 bus routes will be expanded to add pedestrian and bicycle amenities and additional parking spaces.

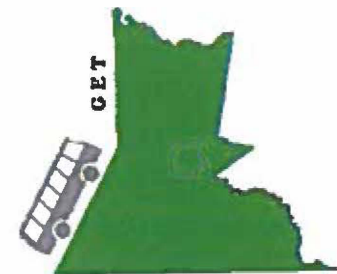
- The purchase of five new buses was approved allowing HRT to establish new MAX commuter routes from Chesapeake and Portsmouth to the Norfolk Naval Station. The Norfolk Naval Station is one of the largest employers in the region and trips from both Chesapeake and Portsmouth require water crossings.

Transit and TDM Projects Funded in SMART SCALE Round 2

- WATA's request for a bus purchase and two shelters were funded. The bus and shelters will serve a new route in a high-demand and underserved York County that connects to James City County, Williamsburg, and Newport News; and it will prove connections to Amtrak and HRT. The route is approximately 30 miles in length, and WATA anticipates over 108,000 trips annually with 210 new peak-period riders each day.

Starting New Bus Service: Greenville-Emporia Transit

Greenville Emporia Transit began bus service operations on October 2, 2017. The service consists of a 20-mile deviated fixed route circulator connecting various destinations within Emporia to the Greenville County Government Center/ Southside Virginia Community College north of the city. Additionally, there is demand-response service in Emporia and rural Greenville County. Service will be expanding in 2018 with the arrival of a third bus and a paratransit equipped van.



The new bus service is a result of a 2016 feasibility study funded by DRPT for Greenville County and the City of Emporia. The feasibility study projected an estimated annual ridership of approximately 15,000 passenger trips for the circulator and approximately 5,000 trips via demand-response service.

4.5 Lynchburg District

Transit and TDM in Lynchburg District

The Lynchburg District is served by the Altavista Community Transit Service, Danville Transit System, Farmville Area Bus, and the Greater Lynchburg Transit Company (GLTC) that operate fixed route bus service and accompanying paratransit service. These services provided over 2.7 million trips in FY17.

Residents, workers, and employers are also served by the RIDE Solutions TDM program operated through a joint effort by Roanoke Valley-Alleghany Regional Commission, New River Valley Regional Commission, Region 2000 Local Government Council, and West Piedmont Workforce Investment Board. RIDE Solutions accounted for a reduction of 12,000 auto trips and more than 250,000 miles of travel in FY17.

Transit and TDM Investments in FY17

Last year's transit improvement projects included 15 new vehicles and new technology for GLTC for automated passenger counters, new fareboxes, and digital stop signage.

Transit and TDM Projects Funded in SMART SCALE Round 1

- In August, GLTC launched The Hopper, a free circulator in Lynchburg's central business district. The Hopper is one of the first major transit-specific SMART SCALE projects funded and was the first completed SMART SCALE project. The purchase of the bus and the service operation is funded through federal, DRPT, and local funding sources. Additionally, DRPT grant funding is allowing for fare-free ridership.
- As part of a larger multimodal project, Danville Transit was awarded funds to purchase two buses and a bus shelter to provide transit access to the Averett University campus. The new buses, titled the Cougar Express, began providing free service to college students in August 2017.



Potential Services between Danville and South Boston and Danville and Gretna

DRPT provided funding and guidance to the Southern Virginia Higher Education Center to determine if there was a demand for fixed route transit between larger population centers in the rural areas in the counties along the North Carolina border. Two routes were identified as potential demonstration routes—Danville to South Boston and Danville to Gretna. The Southern Virginia Higher Education Center and Danville Transit are working with Pittsylvania County to secure funding and prepare for service initiation within the next couple of years.

4.6 Northern Virginia District

Transit and TDM Agencies

The Northern Virginia District is home to eight transit agencies: Arlington County (ART), the City of Alexandria (DASH), the City of Fairfax (CUE), Fairfax County, Loudoun County, Potomac and Rappahannock Transportation Commission (PRTC), VRE, and WMATA. Transit options in Northern Virginia include heavy rail service (Metrorail), commuter rail (VRE), Metroway BRT in Alexandria and Arlington, local bus, regional bus (Metrobus), and paratransit services. Due to its significant population and workforce, as well as traffic congestion, this district has the most transit passengers each day and has some of Virginia's most robust TDM programs. These services provided over 135 million trips in FY17. This includes almost 4.7 million riders on commuter rail and nearly 90 million riders on Metrorail.

There are six TDM programs in Northern Virginia: Arlington County Commuter Services, City of Alexandria's GO Alex, Loudoun County Commuter Services, the Dulles Area Transportation Association, Fairfax County Commuter Services, and PRTC's OmniMatch. These programs accounted for a reduction of almost 5 million miles of travel and almost 180,000 auto trips in FY17.

Transit and TDM Investments in FY17

WMATA provides a critical transportation resource for the Commonwealth's economic vitality and, as such, the Commonwealth provides significant capital funding to WMATA annually. In FY2017, the net capital investment from Virginia was \$137.2 million (30.5%), with \$86.3 million (62.9%) coming from the state and the remainder from local/regional sources. This includes the \$50 million in matching funds paid directly to WMATA to match federal PRIIA funding and \$36.3 million in state transit capital funding. These capital investments support the purchase of replacement rail cars and state of good repair focused investments, including the Safe Track program which was completed in FY17. Additionally, there was language in the Appropriations Act requiring a study of the governance, operations, and financing of WMATA in coordination with the Northern Virginia Transportation Commission. Governor McAuliffe asked former USDOT Secretary Ray LaHood to conduct this study and perform an independent review. Secretary LaHood's recommendations are expected to be released in November.

In addition to capital purchases through WMATA's capital improvement program, nearly 50 replacement and expansion buses were funded and new bus maintenance related facilities were funded for Arlington Transit, Fairfax County, and PRTC. Metrorail facilities were also funded, including new parking garages at the future Silver Line stations at Herndon and Fairfax Innovation Center. Alexandria also received funding to design the West End Transitway BRT.

VRE received funding for construction of new midday and overnight storage facilities and the purchase of nine new expansion cars. VRT, which is based on the Northern Virginia District but operates throughout the state, received funding for an expansion bus, five replacement buses, and various infrastructure improvements.

DRPT also coordinated with WMATA and other providers of transit service in Northern Virginia to increase bus transit service available to transit riders to mitigate the impacts of the WMATA's SafeTrack program. DRPT actively worked with local entities to aide this process which impacted the over 300,000 Virginians who ride Metrorail daily.

Transit and TDM Projects Funded in SMART SCALE Round 1

- SMART SCALE allocated funding for a second entrance to the Ballston-MU Metrorail Station in Arlington County. Ridership through that station in FY16 was approximately

25,000 per day; and due to development in the area, ridership is expected to grow to 40,000. The additional entrance will expand the throughput and capacity of the station and provide additional access for riders via walking and bus connections. Arlington County estimated that the project would remove 13,000 car trips from area roads per day.

- Arlington County also received funding to restructure and expand its service in Shirlington and Marymount University and to the Ballston-MU Metrorail Station.
- A mobile commuter store vehicle for Arlington County was funded to alleviate road congestion and maximize multimodal transportation options in the I-66 and Silver Line corridors. The project is estimated to remove almost 30,000 daily trips and went into service in August 2017.

Transit and TDM Funded Projects in SMART SCALE Round 2

- The City of Alexandria will construct improvements within the Southern Towers complex on the West End Transitway, including two new BRT stations, stops for local transit services, and pedestrian improvements. This project is designed to relieve congestion on I-395 by increasing the throughput in the transportation corridor and connecting local transit services for better efficiency in moving people. The improvements, which will add between 10,000 and 16,000 riders, are part of the larger BRT development in Alexandria.
- DASH received money to construct additional bus parking and storage for the acquisition of six expansion buses and future purchases. The buses will be used in the implementation of the West End circulator route which will complement the planned BRT.
- The Columbia Pike Smart Corridor project in Arlington County was also funded. It consists of TDM and transit-related infrastructure improvements including first- and last-mile options for connecting to transit, real-time transit information, and transit, bicycle, and pedestrian connections between Columbia Pike and surrounding residential neighborhoods. The project will add four additional Capital Bikeshare stations, additional bike parking at existing transit stations, and real-time transit information throughout the corridor. This project received the third highest overall benefit/cost score.
- A set of multimodal projects designed to strengthen connections in the Rosslyn-Ballston Corridor were funded, including a bus purchase to restructure routes and the addition of protected bicycle lanes in the area.
- SMART SCALE provided funding for Loudoun County's purchase of 12 new buses intended to serve four new routes between Loudoun County destinations and Metrorail Silver Line stations.

- VRE requested and was granted funding for a number of infrastructure expansion projects on the Fredericksburg line. Included are the purchase of 11 new coach trains, extensions or construction of platforms in Rippon, Quantico, Lorton, Franconia-Springfield, and Alexandria, and pedestrian crossings at multiple stations. Along with the Fredericksburg District FY18 projects, these changes will allow for VRE to convert from five- to eight-car trains thus increasing ridership by nearly 40 percent by 2040. The VRE project received the highest raw benefit score in the second round.

Summary of the FY18 SMART SCALE projects in the Northern Virginia District

Project	Locality or Agency	Anticipated Benefits
West End Transitway – Southern Towers Complex	City of Alexandria	Expected to serve 10,000 to 16,000 new daily riders
DASH Bus Expansion	City of Alexandria	Estimated annual ridership of over 200,000, reduce daily single occupant vehicle trips by 300, and add 6,000 new daily peak-period trips
Columbia Pike Smart Corridor	Arlington County	Reduce daily single occupant vehicle trips by 500 and add 900 new daily peak-period trips
Rosslyn-Ballston Multimodal Connections	Arlington County	Reduce daily single occupant vehicle trips by at 1,750
Loudoun County Bus Acquisitions	Loudoun County	Serve 1,300 riders each day (550 at peak-period times)
VRE Fredericksburg Line Capacity Expansion	Northern Virginia Transportation Commission	Increase ridership by 40 percent by 2040 and add 3,500 new daily peak-period riders

Transit Options in Transform 66 – Outside the Beltway

In November 2016, the Commonwealth selected Express Mobility Partners (EMP) to build Express Lanes on I-66 Outside the Beltway with the goal of increasing person throughput, by highway and transit, in this congested corridor. EMP will be responsible for all costs to design, build, operate, and maintain the I-66 Express Lanes without any upfront public contribution. As part of the agreement, EMP will contribute \$800 million over the next 50 years to fund new point-to-point, peak period commuter bus services that will begin operation in the corridor when the Express Lanes open in 2022.



Multimodal Solutions - 495 to Haymarket

Benefits:

- By 2025, there will be 13 new/expanded commuter routes with up to 10,000 forecasted daily riders
- By 2040, this will increase to 20 new/expanded routes with up to 13,400 forecasted daily riders.

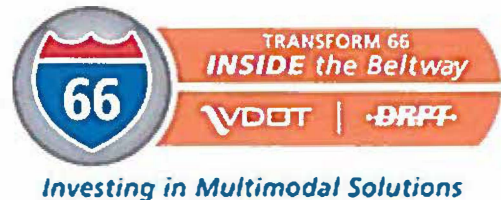
EMP is also providing a \$500 million concessionaire payment to the Commonwealth at financial close. Potential transit projects to be funded by that payment include:

- \$128.5 million VRE Manassas line expansion;
- \$40 million median widening to accommodate an Orange Line extension;
- \$38.5 million commuter parking structure in Fairfax Center;
- \$11.1 million for a western maintenance and bus storage facility; and
- \$4.8 million for East Falls Church Metrorail station bus bay expansion.

With the cooperation of local jurisdictions along the I-66 corridor, VDOT and DRPT developed a Transportation Management Plan (TMP) informing the public about the construction schedule and impacts, and incentive programs to encourage the public to use transit, vanpooling, carpooling and telework during construction of the Express Lanes.

Transform 66 – Inside the Beltway

In December 2017, I-66 from the Capital Beltway to Rosslyn is being converted from HOV-2 to HOT lanes. The Commonwealth is dedicating a portion of these new toll revenues (after operations and maintenance costs and debt service are paid) to fund multimodal improvements benefiting commuters who pay tolls. This will improve person throughput by over 40,000 trips per day by 2040.



In July 2016, the Commonwealth Transportation Board approved \$9.8 million to fund the first group of multimodal improvements that were selected by the Northern Virginia Transportation Commission. Implementation of this first round of multimodal improvements began in late 2016, and all were either underway or completed by September 2017. Projects fully funded include:

- A 250 space commuter parking lot in Loudoun County;
- The purchase of two buses and two years of operations for new Fairfax Connector service between the Government Center and Foggy Bottom;
- New PRTC service between Gainesville and the Pentagon;
- Additional peak hour service on the ART 55 route;

- Additional peak hour service on the Metrobus 2A route;
- Bus stop consolidation on Lee Highway and Washington Boulevard in Arlington;
- Up to 16 new bikeshare stations in Falls Church; and
- TDM outreach to the I-66 corridor, Loudoun County carpool and vanpool incentives and TDM marketing, and transit information display screens.

Combined, these projects will move over 1,800 people daily and reduce travel delay by 37,000 hours annually.

I-395 Express Lanes

In August 2017, VDOT began construction of a third lane and started conversion to express lanes on an eight mile segment of I-395. The project is expected to open to traffic as an HOT-3 facility in 2019. As part of this project, Transurban, the facility operator, has agreed to provide an annual transit payment to the Commonwealth of \$15 million. The Commonwealth anticipates the execution of an agreement with the Northern Virginia Transportation Commission and PRTC to identify and prioritize projects for funding.



DRPT and VDOT are funding a two million dollar TMP during construction. The purpose of the TMP is to mitigate the impacts of construction by providing alternatives and commuter education. Projects to be funded in the TMP include:

- Increased service on the existing PRTC Dale City OmniRide route and Metrobus 18P and 21D routes;
- Relocation of the Commuter Store at the Pentagon Transit Center from two bus bays to a permanent structure;
- Carpool and vanpool incentives;
- Employer outreach in the I-395 corridor; and
- Incentives to businesses to establish new telework programs.

In 2016, DRPT worked with local jurisdictions and transit systems from Arlington to Spotsylvania County to produce a new I-95/I-395 Transit/TDM Study. The final report includes a list of new and expanded transit services and TDM program enhancements that can be implemented to improve travel using the \$15 million Annual Transit Investment provided by TransUrban from toll revenues.

The study determined that if fully implemented, the transit and TDM improvements could increase person throughput by 350,000 trips, increase daily transit work trips to 237,000, and increase daily HOV trips to 92,000 between 2015 and 2040.

4.7 Richmond District

Transit and TDM Agencies

The Richmond District has four transit agencies: Blackstone Area Bus System (BABS), Greater Richmond Transit Company (GRTC), Lake Country Area Agency on Aging (LCAAA), and Petersburg Area Transit (PAT). These services provided over 6.7 million trips in FY17.

RideFinders, a division of GRTC, is the TDM program that provides commuter assistance, employer outreach and vanpool formation services to the Richmond and Petersburg metropolitan areas. RideFinders' program accounted for a reduction of more than 1 million auto trips and nearly 40 million miles of travel in FY17.

Transit and TDM Investments in FY17

In addition to over 20 replacement vehicles across the district, PAT received funding for renovation of its maintenance facility; and GRTC was allocated money to engineer and design a new transfer and install new bus stop signage. Both BABS and LCAAA received funding to add two new passenger vehicles each.

Transit and TDM Projects Funded in SMART SCALE Round 1

- A new structured park-and-ride adjacent to the PAT transfer center is estimated to provide 200 parking spaces for residents using PAT services, GRTC's Petersburg Express, and Greyhound service.

Transit and TDM Projects Funded in SMART SCALE Round 2

- Henrico County received funding to improve Broad Street pedestrian and transit facilities. Construction will include new sidewalks, ADA ramps, benches, and a new bus shelter that provide safer and more convenient access to transit along the corridor thereby increasing transit ridership on a route that will feed into the Pulse BRT route.
- Henrico County also received money for pedestrian and transit facility improvements on Parham Road. This set of projects includes new sidewalks, ADA ramps, bus shelter improvements, and bus stop benches, providing safer and more convenient access to transit along in this busy corridor.
- Richmond was awarded funding for citywide installation of Transit Signal Prioritization (TSP) and Emergency Vehicle Preemption (EVP) systems, to benefit transit system schedules and improve emergency responses. The TSP and EVP systems work with vehicles equipped with automated vehicle location (AVL) technology and will aid in the efficiency of GRTC's network within the City of Richmond, including the Pulse BRT, by allowing for transit priority to meet headways and increasing the efficiency of transit. It is estimated that this project will add an additional 350 peak-period daily transit riders.

- Chesterfield County received funding for a new park-and-ride south of the City of Richmond on Cogbill Road near Chippenham Parkway.

GRTC's Pulse Bus Rapid Transit

In preparation to begin operations by the end of FY18, construction is ongoing for the Pulse, a BRT system that will run from Willow Lawn in Henrico County to Rocketts Landing in the City of Richmond. The Pulse is approximately eight miles and will feature 14 stations serving destinations such as the Science Museum of Virginia, Virginia Commonwealth University, Virginia Union University, VCU Medical Center, the Capitol, and Main Street Station.

The project is collaboration between GRTC, DRPT, VDOT, the City of Richmond, and Henrico County. The Pulse will be a high-frequency transit service with dedicated infrastructure, including a unique station design and service-specific buses. It is anticipated to have an estimated ridership of 3,000 each day; and it will be within a half-mile of 33,000 residents and 77,000 jobs. Establishment of BRT will provide a catalyst for revitalization of commercial properties, which will ultimately result in more transit-accessible housing and additional transit-accessible jobs within the City of Richmond and Henrico County.

Richmond Transit Network Plan

DRPT has supported the *Richmond Transit Network Plan* which will realign GRTC service across the City.



The implementation of the plan will

ensure that there is more efficient and direct access to the BRT from neighborhoods, such as Fulton, where there were identified service gaps and obstacles to connectivity between the neighborhood and the nearby BRT stations. GRTC had made many service updates in the past, but it had not conducted a system-wide route change to this level in its history. The service changes recommended across the city would neither change the operational costs of the system nor increase the need for vehicles.

The number of people within a half-mile of frequent service (bus service every 15 minutes) would increase 200 percent from 36,000 today to 114,000. Also, the number of jobs with a half-mile of frequent service would increase 25 percent from 91,000 to 117,000.

Greater RVA Transit Vision Plan

The *Greater RVA Transit Vision Plan* was created in coordination with the Richmond Regional Transportation Planning Organization (RRTPO) and with input from GRTC and the nine jurisdictions that make up the RRTPO: the Town of Ashland, the City of Richmond, and the Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent and

Powhatan. The plan's intent was to make recommendations for transit service for the region over the next 25 years.

The recommended system would more than double ridership by 2040 to 80,000 daily boardings. It also would increase the number of residents near frequent transit by nearly 500 percent and increase the number of jobs near frequent transit by 200 percent. Highly productive proposed routes include an extension to the Broad Street BRT to Short Pump (over 8,000 daily riders), a BRT route on US 60 (4,500 daily riders), and a BRT on VA 6 (3,500 daily riders).

The implementation of the plan will be carried out by the RRTPO and the local jurisdictions. The RRTPO added implementation projects, including more localized and detailed studies, to its FY18 work plan and the jurisdictions can take steps towards implementation on their own schedule with assistance from DRPT.

4.8 Salem District

Transit and TDM in Salem District

Blacksburg Transit, Pulaski Area Transit, RADAR, Radford Transit, and Valley Metro all operate within the Salem District. These services provided 6.1 million trips in FY17.

The district is served by the RIDE Solutions TDM program, operated through a joint effort by Roanoke Valley-Alleghany Regional Commission, New River Valley Regional Commission, Region 2000 Local Government Council, and West Piedmont Workforce Investment Board. RIDE Solutions accounted for a reduction of 7,000 auto trips and almost 150,000 vehicle miles traveled in FY17.

Transit and TDM Investments in FY17

Capital projects funded in FY17 include 26 replacement buses and vans across the district, an expansion bus and new LEED-certified multimodal facility for Blacksburg Transit that will be located on the Virginia Tech campus and, and new technology and maintenance equipment for RADAR. The new multimodal facility for Blacksburg Transit will provide for increased efficiency for transit operations in Blacksburg and will also serve as the starting point for the new Virginia Breeze Intercity Bus and Smart Way service to Roanoke (with connections to the airport and Amtrak).

Transit and TDM Funded in SMART SCALE Round 1

- Improvements to Edgewood Street in Roanoke would increase transit accessibility where there are missing sidewalks and limited bus stop infrastructure. This project would provide more formal accommodations for transit users along Edgewood Street which will improve safety and transit usage on Valley Metro's system.

Transit and TDM Funded in SMART SCALE Round 2

- Greater Roanoke Transit Company (Valley Metro) was awarded funding for three coach buses for additional Smart Way commuter service between Blacksburg and Roanoke. This project received the fourth highest benefit/cost score in the second round, which would provide service to over 65 peak period riders per day, removing vehicles from the congested I-81 corridor.
- Valley Metro also received funding for an AVL system that would provide real-time information to passengers waiting at bus stops. The technology improvements are estimated to create an additional 141 new daily peak-period trips and result in over 550 new transit miles each year.
- Valley Metro was granted funding to accommodate additional capacity by adding larger buses for two routes in the US 460 corridor. Hourly boardings on the two routes have increased by more than 125 percent since FY13, and the existing buses do not have the capacity to meet demand. It is estimated that this expansion will add 84 new peak period daily passenger trips to these two routes.
- Blacksburg Transit was awarded funding for two articulated buses to meet increased demand on routes serving Virginia Tech. It is estimated that in the next five to ten years, Virginia Tech's student population will increase by 5,000 increasing demand on Blacksburg Transit. Over 700 daily peak-period trips are anticipated to result from this expansion.

4.9 Staunton District

Transit and TDM in Staunton District

There are three transit agencies in the Staunton District: Central Shenandoah Planning District Commission's BRITE service, Harrisonburg Department of Public Transportation (HDPT), and Winchester Transit. These services provided almost 3.0 million trips in FY17.

Two TDM programs—RideShare, operated by the Central Shenandoah Planning District Commission and the Thomas Jefferson Planning District Commission in the Culpeper District, and RideSmart, operated by the Northern Shenandoah Planning District Commission—provide commuter services and programs to residents in the Staunton and Winchester areas. These programs accounted for a reduction of more than 15,000 auto trips and nearly 800,000 vehicle miles traveled in FY17.

Transit and TDM Investments in FY17

In FY17, DRPT funded eight replacements buses across the Staunton District, a new bus for expanded service in Harrisonburg, and the design of a new maintenance facility for Winchester Transit. Additionally, HDPT received funding for a new ITS system which will

allow the agency to better measure ridership numbers, track ridership trends, and improve system efficiency.

Transit and TDM Projects Funded in SMART SCALE Round 1

- A commuter park-and-ride lot in Waynesboro will be repaved, striped, and provided with lighting. Additionally, a bus stop and bus loading zone will be added to serve the BRITE bus service in the area and area carpools and vanpools.

BRITE Transit

In 2016, the Central Shenandoah Planning District Commission worked with the numerous transit systems in the area and VRT to simplify the transit system in Augusta County, Staunton, and Waynesboro. The consolidated system was christened BRITE in July 2017. In order to implement the consolidated service, a new bus stop installation program was completed and all of the buses in the service area were rebranded with the new BRITE name and logo over the last two years. In FY17, the transfer of the administrative and maintenance facility in Fishersville from VRT to Central Shenandoah Planning District Commission was finalized. DRPT provided funding and technical assistance to support the transition and launch of the new consolidated service. As a result, the system is easier to use, more predictable for riders, including new riders.



5 Conclusion

FY17 was an active and successful year for DRPT and its partners that provide transit and TDM services. In addition to DRPT's regular operating and capital funding for its partners, funding for transit and TDM projects through SMART SCALE increased dramatically between round one and round two demonstrating the ability of transit projects to meet statewide policy objectives. In the second round, major expansion to VRE's Fredericksburg line was selected for funding ensuring that Virginia continues to address congestion in the I-95 corridor. Expanded Smart Way service funded through SMART SCALE will also help mitigate increasing congestion in the I-81 corridor.

Major transit and TDM transportation projects were completed, continued, or started in Northern Virginia along the I-66, I-95, and I-395 corridors, chief among them the conversion of HOV lanes to HOT lanes on I-66 inside the beltway and on I-395 with part of the toll revenue dedicated to transit and TDM projects within the corridor. The Commonwealth's TDM programs and initiatives continue to convert single occupant vehicle trips to vanpool, carpool, or transit trips; and more people than ever before are teleworking.

The coming year will prove to be just as active. Already in FY18 new bus services began operations: the downtown Lynchburg circulator bus service, the Hopper, the Cougar Express in Danville and new service in Emporia and Greensville County. The Commonwealth's second BRT line will be launched in Richmond in FY18. New intercity bus service between Blacksburg and Washington, DC will begin. Finally, transit and TDM projects in the interstate corridors in Northern Virginia will continue, thus building on DRPT's commitment to alleviate congestion and create a more sustainable transportation network within the Commonwealth.

At the same time, transit capital funding is at risk because of the expiration of the Capital Project Revenue bonds. These bonds currently supply approximately 40 percent of the capital funding the Commonwealth provides to transit agencies. Without these dollars, expansion projects will be threatened, and agencies will be unable to maintain a state of good repair to the current services.

Without question, as the Commonwealth's population continues to grow with more individuals needing transportation options, transit, vanpooling, carpooling, telework and other TDM services will play a significant role in helping meet the demands and needs of Virginians while reducing congestion and the number of single occupant vehicle trips.

6 Appendix

List of Transit Agencies Receiving State Funding

(* - Agencies operating in multiple districts, listed by administrative office location)

District	Agency	Office Location
Bristol	Bristol Virginia Transit	Bristol
	District Three Public Transit (Mountain Lynx)	Marion
	Four County Transit	Cedar Bluff
	Graham Transit	Bluefield
	Mountain Empire Older Citizens (MEOC)	Big Stone Gap
Culpeper	Charlottesville Area Transit (CAT)	Charlottesville
	Greene County Transit	Stanardsville
	JAUNT*	Charlottesville
Fredericksburg	Bay Transit*	Warsaw
	Fredericksburg Regional Transit (FRED)	Fredericksburg
Hampton Roads	Chincoteague (Pony Express)	Chincoteague
	Greensville-Emporia Transit	Emporia
	Hampton Roads Transit (HRT)	Norfolk
	STAR Transit	Tasley
	Suffolk Transit	Suffolk
	Williamsburg Area Transit Authority (WATA)	Williamsburg
Lynchburg	Altavista Community Transit System (ACTS)	Altavista
	Danville Transit	Danville
	Farmville Area Bus (FAB)	Farmville
	Greater Lynchburg Transit Company (GLTC)	Lynchburg

Northern Virginia	Alexandria Transit Company (DASH)	Alexandria
	Arlington County (ART)	Arlington
	City of Fairfax (CUE)	Fairfax
	Fairfax County (Fairfax Connector)	Fairfax
	Loudoun County (LC Transit)	Leesburg
	Potomac and Rappahannock Transportation Commission (PRTC) (OmniRide, OmniLink)	Woodbridge
	Virginia Railway Express (VRE)	Alexandria
	Virginia Regional Transit (VRT)*	Purcellville
	Washington Metropolitan Area Transit Authority (WMATA)	Washington, D.C.
Richmond	Blackstone Area Bus System (BABS)*	Blackstone
	Greater Richmond Transit Company (GRTC)	Richmond
	Lake Country Area Agency on Aging*	South Hill
	Petersburg Area Transit (PAT)	Petersburg
Salem	Blacksburg Transit	Blacksburg
	Greater Roanoke Transit Company (Valley Metro)	Roanoke
	Pulaski Area Transit (PAT)	Pulaski
	RADAR*	Roanoke
	Radford Transit	Radford
Staunton	Central Shenandoah Planning District Commission (BRITE)	Fishersville
	Harrisonburg Department of Public Transportation (HDPT)	Harrisonburg
	Winchester (WinTran)	Winchester

List of TDM/Commuter Assistance Programs Receiving State Funding

(* - Program is in multiple districts and listed in both)

District	Program Name	Operating Agency/Agencies
Culpeper	RideShare*	Thomas Jefferson Planning District Commission
	Commuter Services by RRRC	Rappahannock-Rapidan Regional Commission
Fredericksburg	GWRideConnect	George Washington Regional Commission
	Middle Peninsula Rideshare	Middle Peninsula Planning District Commission
	Northern Neck Rideshare	Northern Neck Planning District Commission
Lynchburg	RIDE Solutions*	Region 2000 Planning District Commission
Hampton Roads	TRAFFIX	Hampton Roads Transit
Northern Virginia	GO Alex	Alexandria Department of Transportation and Environmental Services
	Arlington County Commuter Services	Arlington County Department of Environmental Services
	Fairfax County Commuter Services	Fairfax County Department of Transportation
	LiveMore	Dulles Area Transportation Association
	Loudoun County Commuter Services	Loudoun County Department of Transportation and Capital Infrastructure
	PRTC OmniMatch	Potomac Rappahannock Transportation Commission
	TyTran	Tysons Transportation Management Association

Richmond	RideFinders	RideFinders (Greater Richmond Transit Company)
Salem	RIDE Solutions*	New River Valley Regional Commission, West Piedmont Workforce Investment Board
Staunton	RideShare*	Central Shenandoah Planning District Commission
	RideSmart	Northern Shenandoah Valley Regional Commission